



Edgardo Civallero
Quenas

Edgardo Civalero

Quenas

An initial approach



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Introduction

Quenas (also written *qina*, *qëna*, *kena*, *khená* or *k'ena*, among other spelling variants), form a family of traditional aerophones whose "model," "professional," or "standard" version has been popularized through commercial Andean music until becoming one of the best-known musical instruments of the Andes.

They correspond to notation 421.111.12 of the Hornbostel-Sachs classification: an aerophone, edge-blown, without a duct or channel, with the edge located on the upper rim of an individual tube, with the lower end open and with finger holes. The same structure is present in instruments from many other parts of the world: from China to Central Africa, passing through the Balkans.



Quenas are vertical flutes with a truly simple structure. They consist of a tube open at both ends, or open at one end and semi-open at the other. At the proximal end there is a notch or edge of variable shape (U-shaped, triangular or V-shaped, square, semicircular, elliptical) into which the musician blows directly. Depending on the shape, width, and depth of the notch, the quality of the sound produced by the instrument may vary notably: the narrower it is, the more the intensity increases and the more the "sweetness" of the timbre decreases. The *quena* has no air duct, unlike the European recorder or the Andean *pinkillo*, which makes its performance particularly difficult.

The fingering holes are located in the distal half of the tube, in frontal position. They are circular or square, generally arranged in line with the edge, of relatively similar sizes and in variable number. Certain holes may appear

misaligned in order to facilitate the fingering of some notes. Some may be larger than others, because of tuning adjustments. The number varies between 4 and 8, although in general terms "professional" *quenas* have 7 holes. In the *quenas* called "Indian," there is usually no thumb hole, which in any case is located a little higher than the first frontal hole, but opposite to it.

The distal end of the tube may remain completely open or coincide with a node of the cane. In that case, the knot is drilled until an opening is made, the tube being "half-stopped" or "semi-stopped"; that partial close of the distal opening alters the tuning of the instrument, or at least that of the lowest hole.

"Professional" *quenas* are usually tuned in G major and measure about 35 cm in length and about 2.5 cm in diameter. There are "professional" *quenas* tuned in other scales (F major, F-sharp major, G-sharp major, A major), whose lengths and diameters vary proportionally.

The musical scale provided by the "professional" *quena*

Image 1 (prev. page).
Different varieties of *quena*.
[Photo: E. Civallero].



is diatonic, although with the appropriate fingering, which may include both "crossed positions" or "forked fingerings" and "half holes," a perfect chromatic scale can be achieved. It easily covers an interval of two octaves, the low and high registers; with the correct technique, a variable number of notes within a third octave, the overhigh register, may be obtained. In order to achieve the tuning of the high and overhigh registers, the tube must be as cylindrical as possible: instruments with a conical shape, elliptical section, or slight curvatures along their length tend to "lie" in those registers.

The material most commonly used in the manufacture of *quenás* is cane. It is what gives the instrument its characteristic silky and enveloping timbre. Traditionally, different species of cane are used; depending on the size of the instrument, availability, and geographic location,

chuqui cane, *sokhosa* or *suqusa*, *tacuara*, "Castile" or common reed, *mamaq*, the canes of Huánuco and Chanchamayo, "yellow cane," "white cane," *tokhoro* or *tuquru* cane, *quirqui* or *kirki*, and certain imported varieties of bamboo may be used.

Each variety of cane, depending on its quality, internal roughness, wall thickness, shape, circular or elliptical, defects, and drying and seasoning time, sounds in a different way. Cane that is well dried in the shade, circular in section, internally polished, with continuous and dense fiber, and without defects of any kind is preferred, although in traditional spheres those many recommendations are not taken into account, hence the peculiar sound of some of those *quenás*: "misplayed," "out of tune," "rough," or "vibrant" for some urban musicians.

Another very commonly used material is wood. Given the complexity involved in producing an open, perfect, thin-walled tube from a block of wood, such material is used mainly by carpenters experienced in the handling of lathes and by specialized luthiers. The hardest local

Image 2 (prev. page).
Distal ends and *semitapadillos*.
[Photo: E. Civallero].



varieties of wood are preferred; because of the characteristics of the material, the timbre of these *quen*as lacks the harmonics provided by cane and, therefore, their sound is "cleaner." In traditional contexts, branches bored with red-hot irons have sometimes been used for *quen*as and other flutes. Their sound is not highly appreciated by urban players.

Quenas may be made of stone, steatites, sandstones, schists, fired clay, thin gourds, metal tubes, and pipes of different types of plastic. The latter are highly valued in places where cane is not abundant, an increasingly frequent situation, given the ecological pressure affecting the Andean wetland areas where reed grows naturally. The quality of their sound is, if not inferior, at least quite different. Bone *quen*as are, today, a true rarity. Leg bones of *parina*, Andean flamingo, wing bones of pelican, or wing bones of condor or other large birds are usu-

ally used, or else ulnas or tibias of mammals such as the llama, deer, or puma. Given the reduced diameter and length of bones, their usually elliptical section, their possible porosity, and the curvature shown by many of them, these *quen*as have a high-pitched and fluctuating sound and are difficult to play.

Image 3 (prev. page).
Notch of a wooden *quena*.
[Photo: E. Civallero].



History

Quenas have centuries of antiquity. Lithic, ceramic, bone, and even golden *quenas* have been found in burials from several pre-Hispanic cultures: Chavín, Moche or Mochica, bone, with 4 centered holes; Recuay, on vessels, with 4 holes; Lima-Pachacámac, bone, with 4 centered holes; Paracas; Nasca, gold, with four holes, and bone, finely decorated with circles, with 4 holes; Huari; Tiahuanaco/Tiwanaku; Sicán-Lambayeque, gold, with 3 holes; Chimú; Chancay, bone, with 4 holes, decorated; Chíncha, black ceramic, with 4 holes, conical shape, and distal end at an angle; and Inca.

Pre-Hispanic *quenas* are instruments with a variable number of frontal holes and a notch or cut of square, V-shaped, U-shaped, or semicircular form. Their holes are

Image 4 (prev. page).
Fingering holes.
[Photo: E. Civallero].



Quenas
Hueso y caña

usually located equidistantly, depending on the skill or characteristics of the maker, who probably used his own fingers to mark the distances, and may be distributed along the whole instrument or grouped in the center or in the lower half. Sometimes the interior is sealed with beeswax to cover pores and thus achieve a better sound. The exterior may be finely decorated with linear or circular engravings. Any imperfection in the tube, including errors in the drilling of the holes, was repaired with some material of plastic characteristics, for example wax or clay, whose marks can still be clearly appreciated.

There is a heated debate over the scales used by pre-Hispanic *quenás*. Authors from the early and mid-twentieth century popularized the theory of the "Inca

Image 6.
Bone *quena*, Nasca culture, Peru.
[Photo: Museo Chileno de Arte Precolombino].

Image 5 (prev. page).
Quenas of bone and cane, Nasca culture, Peru.
[Photo: Museo Regional de Ica, Peru].





pentatonic scale," referring to a series of five sounds that were not always determined. Modern studies on archaeological flutes suggest that the range and characteristics of the scales would have been highly variable and would not have adhered to concrete patterns, much less to patterns located within the frameworks of Western music.

According to Izikowitz, the original geographic distribution of this type of aerophone was limited to the south by a line between Jujuy and the Chaco, Argentina, and to the east by another line in the direction of the Paraguay River toward the north. According to this author, lithic *quen*as were found especially on the Meseta del Collao; those of clay, gourd, and metal, in Peru; those of cane, from Peru toward the northeast, as far as the Guianas,

Image 8.

Bone *quena*, Chincha culture, Peru.

[Photo: Museo Nacional de Arq., Antrop. e Hist. del Perú].

Image 7 (prev. page).

Bone flute, "*quena*" type, Brazil.

[Photo: Europeana].





and toward the southeast, as far as Paraguay; and those of bone, in Peru and around the Amazon basin as far as the Guianas. Izikowitz documents *quenas* or notched flutes made of jaguar bone among the Patamona, Ingariko, of Guyana and the Yuracaré of eastern Bolivia, and Koch-Grünberg records *quenas* made of deer bone among the Ye'kuana, Makiritare, of Venezuela and of jaguar bone among the Pemon, Taulipang, of Guyana. The D'Harcourts, among their numerous works on South America, reported the existence of *quenas* 7-8 cm in length, instruments unique within their class.

The earliest documentary records of *quenas* appear in the Jesuit Ludovico Bertonio's *Vocabulario de la lengua aymara* (1612):

Image 10.

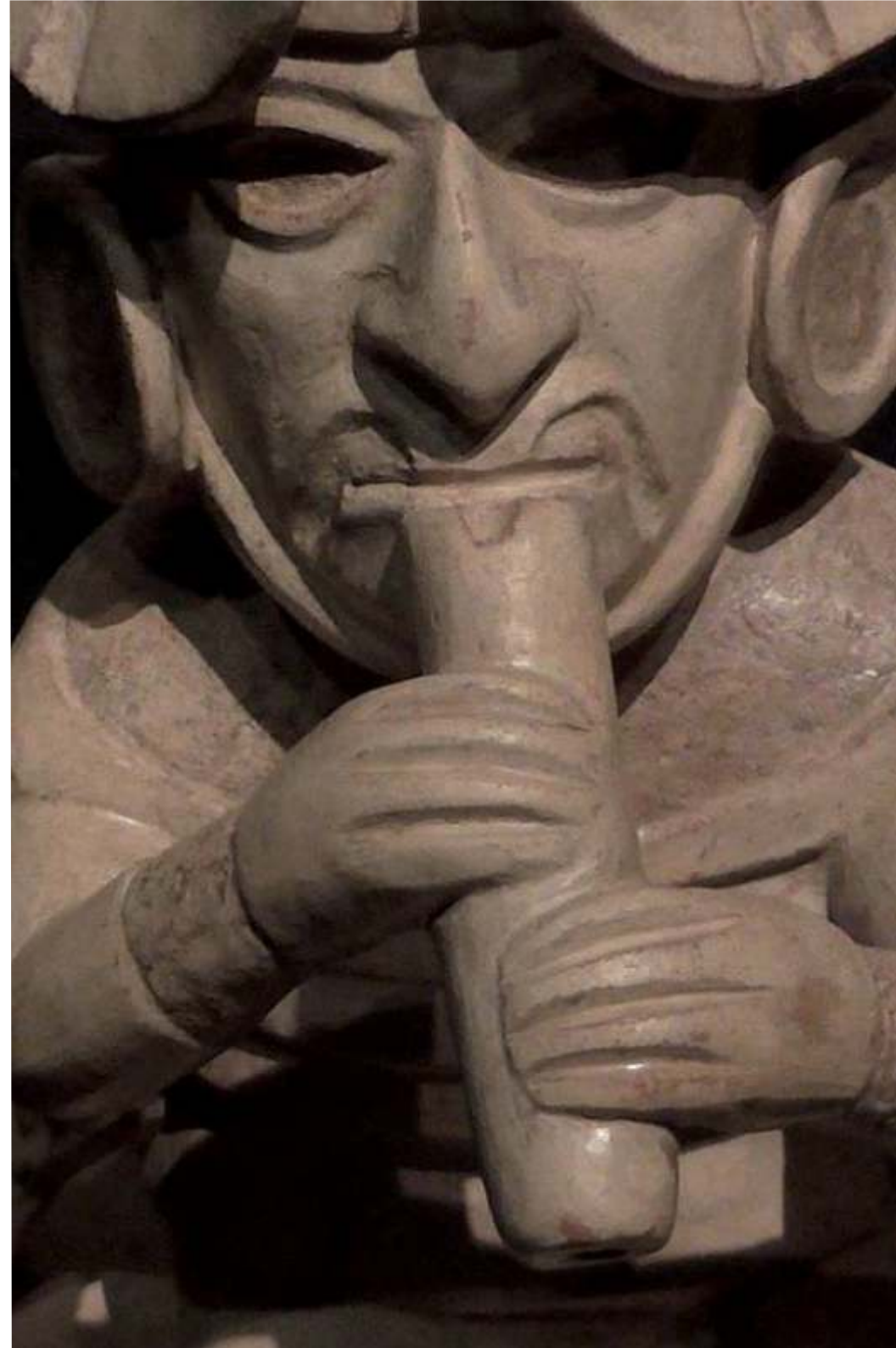
Quena player, Mochica culture, Peru.

[Photo: Museo Nacional de Arq., Antrop. e Hist. del Perú].

Image 9 (prev. page).

Bone *quena*, Pachacámac Valley, Peru.

[Photo: Pontificia Universidad Católica del Perú].





Cane flute: *Quena quena* (p. 243, first part)

Pputu pputu, Quena quena, Lutu lutu, Ppía ppía etc.: Stone or any other thing very full of holes (p. 284, second part)

Quena quena, Ppía ppía, Lutu lutu: A thing very full of holes (p. 288, second part)

Quena quena, pincollo: Cane flute (p. 289, second part)

Curiously, contemporary dictionaries of the Quechua language, like the ones by Domingo de Santo Tomás (1560), Juan Martínez de Ormachea (1604), Diego de Torres Rubio (1603), Diego González Holguín (1607), Juan Roxo Mexía y Ocón (1648), and Esteban Sancho de

Image 12.

Gourd *quena*, Inca culture, Peru.

[Photo: Museo Nacional de Arq., Antrop. e Hist. del Perú].

Image 11 (prev. page).

Bone *quena*, coastal desert in Lima, Peru.

[Photo: Museo de la Universidad Agraria, Lima, Peru].



Flauta recta en hueso
(P1, Tardo 1000-1450 n.E.)

Flautas rectas Chíncha
(1000-1450)



Melgar (1691), ignore the term "*quena*" or "*quena quena*," and include "*pingollo*" (Santo Tomás) or "*pincullu*" (González Holguín) as "flute."

Felipe Guaman Poma de Ayala, in *El primer nueva corónica y buen gobierno* (ca. 1615), and Bernabé Cobo, in *Historia del Nuevo Mundo* (1653), do use "*quena quena*." On pages 315 and 325 of his work, Guaman Poma refers to "*quena quena*" as an Aymara dance, of the men of Collasuyo/Qullasuyu, or of Condesuyo/Kuntisuyu, and to the flutes as "*pingollos*." Cobo, for his part, defines it as: "*Quenaquena* is a single cane like a flute for singing laments."

Image 14.

Quena player, Chimu culture, Peru.

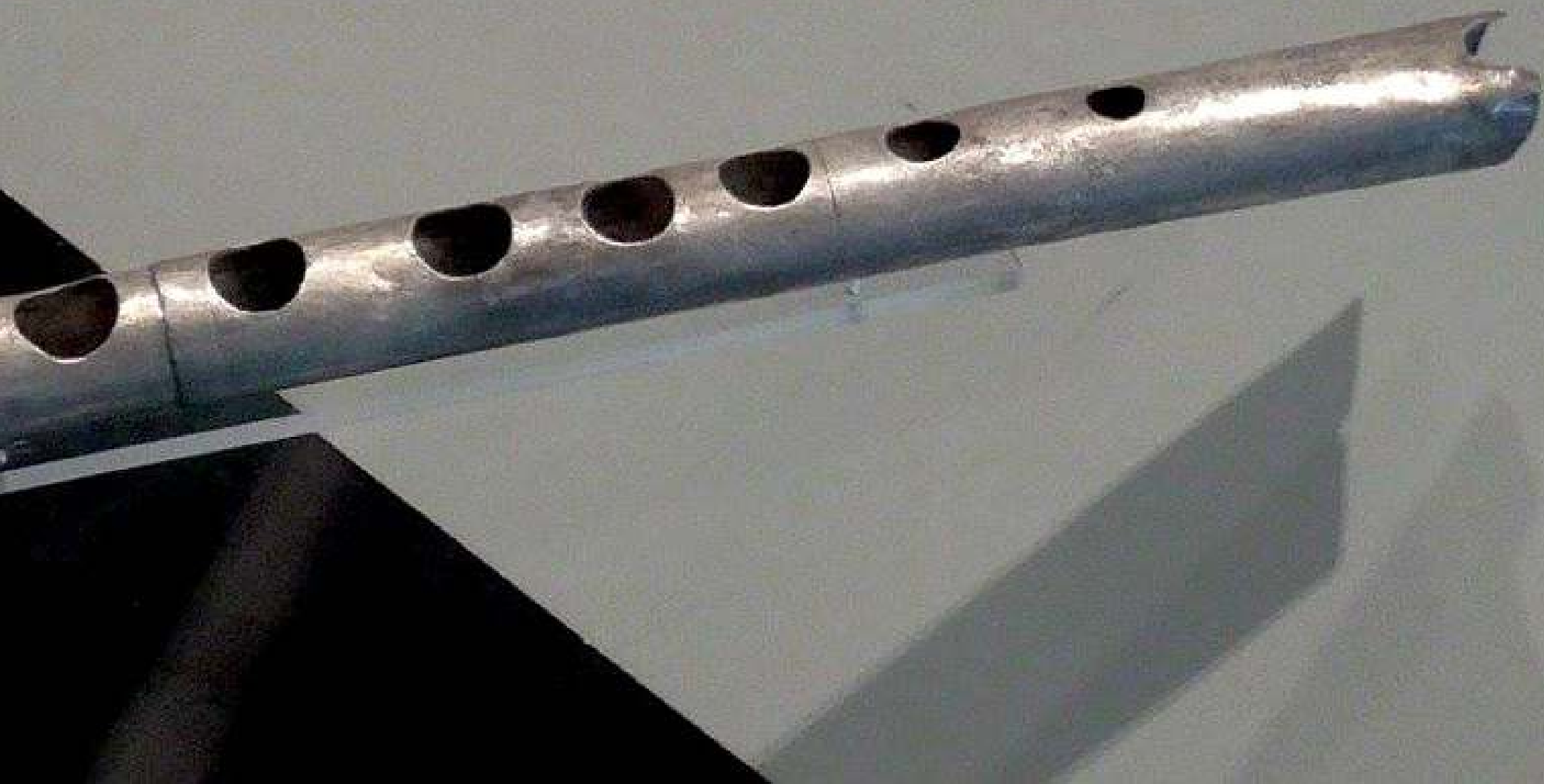
[Photo: Museo Nacional de Arq., Antrop. e Hist. del Perú].

Image 13 (prev. page).

Pottery *quenas*, Chincha culture, Peru.

[Photo: Museo Nacional de Arq., Antrop. e Hist. del Perú].





Diversity

The references by these early chroniclers, especially Guaman Poma and the Inca Garcilaso de la Vega, to Inca flutes made from bones taken from enemies fallen in combat, are probably related to the manufacture of *quenas* for ritual purposes.

At an international level, the most popular form of *quena* is the "model," "professional," or "standard" one, which has assimilated a good number of features from Western music: tempered diatonic/chromatic scale, which determines the number of frontal holes; presence of a thumb hole; absence of tuning or "false" holes at the base; and certain physical characteristics derived from the construction process, the form and quality of the material, and its treatment.

At the same time, a large number of traditional *quenas* survive, above all, although not exclusively, in Indigenous and/or rural contexts. Traditional Andean *quenas* may be grouped, *grosso modo*, into "large *quenas*," instruments that usually reach dimensions greater than

Image 15 (prev. page).

Silver *quena*, Chimu culture, Peru.

[Photo: Museo Nacional de Arq., Antrop. e Hist. del Perú].



50 cm and are generally played in ensembles, and "small *quenás*," flutes between 20 and 40 cm long, played solo or in duos, also called "peasant" because of their wide distribution in rural contexts.

This is one of the instruments that, in Aymara territory, southern Peru, the Bolivian high plateau, and northern Chile, are played during the *awti pacha*, the dry season of that people's traditional calendar, which extends from the end of Carnival, around March, to All Saints' Day, at the beginning of November, and includes the harvest season. A good part of those aerophones, especially the most traditional ones, are made with *tokhoro* or *tuquru* cane, a thick and sturdy variety of bamboo originating in the *yungas* or warm valleys of Bolivia, and are bound with llama or cattle nerves or connective tissue, to prevent cracking. As occurs with most Andean aerophones, they are instruments played exclusively by men.

The morphological differences between traditional and "commercial" instruments are significant. For the former, thick and cylindrical reed pipes are usually preferred, with a node at the lower end, from which a perforated cap or "semi-stopper" is created; the edge or mouthpiece is usually square or U-shaped, and the holes, circular or, sometimes, square, do not always allow a tempered scale to be produced. The interior of the tube is not usually sanded, nor is the exterior usually lacquered. The latter use thin tubes with thin walls, slightly conical, with U- or V-shaped edges and holes that produce a tempered scale. All advances in the creation of Western professional instruments are applied in the construction of "modern" *quenás*.

Image 16 (prev. page).

Detail of *pusipías*.

[Photo: E. Civallero].



Large *quen*as

Of the large number of traditional *quen*as played throughout the Andes, at least four of them are performed in large musical groups. These use *tropas* of flutes: an ensemble that includes different sizes of the same type of flute, and that is accompanied by percussion instruments such as bass drums, *cajas*, and snare drums. The *quen*as played in this way are the *pusipías*, the *quena quen*as, the *choquelas*, and the *lichiguayos*. All of them belong to the Aymara people and can be heard in northern Chile and in the high plateau of Bolivia and Peru, the Meseta del Collao, especially around Lake Titicaca.

Image 17 (prev. page).
Bone *quena* (funerary offering), Paracas culture, Peru.
[Photo: Museo Chileno de Arte Precolombino].

The *pusipías* (also written *pusipia*, *pusi p'iya*, *phusipia*, *pusi ppia*, *pusip'ia* or *pushipia*, from Aymara *pusi*, "four,"



and *p'iya*, "hole") have, as their name indicates, 4 finger holes located on the front. They are played especially in the department of La Paz, Bolivia, in localities such as Santiago de Huata, Colquenchá, Achacachi, Pucarani, or Tambocusi. They can also be seen in other Bolivian departments (Oruro, Cochabamba) and in some places in the department of Puno, southern Peru.

Ensembles of *pusipías* usually include two flute sizes: the *tayka pusipía*, 80 cm long, and the *qallu*, *malta* or *ma(ha)la pusipía*, 60 cm. Their tunings are separated by an interval of a fourth or fifth. Ernesto Cavour notes the existence of a third size, the *jiska pusipía*, with a length of about 40 cm and tuned one octave higher than the *tayka*. The sound of these aerophones is accompanied by a *wank'ara* bass drum provided with a *bordona*: a cord, stretched over one of the skins, onto which cactus spines, cane splinters, or small sticks are threaded in

order to produce a vibrating sound similar to that of a snare drum.

The *pusipías* provide the musical frame for a dance known as *mocolulo* (also written *muqululu*, *mukululu* or *mokolulu*). In it, and as occurs with many other ensembles of Andean aerophones, the flutists are also dancers, and they are dressed in a series of very particular garments: long skirts (*cinturas* or *sabanillas*), two little bags (*chuspas*) crossed as a bandolier, multicolored caps (*ch'ullus*) adorned with pearls (*wallqa*), and characteristic feather crowns that represent the flowers of the different tubers cultivated by the Aymara, potato, oca, iñaño, etc. In addition to the flutists, all male, women participate in the dance, dancing and occasionally singing, as does a certain number of masked or disguised characters who represent mythical animals, such as the fox or the *kusillo* or monkey, the *achachi* and the *awila* (the ancestors), and the *mallku* (the head of the community).

Image 18 (prev. page).

Detail of the fingering holes of *pusipías*.

[Photo: E. Civallero].

Many authors give the flutes, and the music they play, the name of the dance, calling them directly *mocolulos*.



The *quena quenas* (also written *quena-quena*, *quenaquena*, *kena kena*, *khen khen* or *qina qina*) are flutes made from the sturdy *tokhoro* or *tuquru* cane. They have 6 holes located on the front and one on the rear. Their ensembles usually include a single flute size, the *tayka quena quena*, 50 cm long and 3 cm in diameter, although until a few decades ago another size was used, the *malta* or *mala quena quena*. They are accompanied by a *wank'ara* bass drum provided with a *bordona*. They are played both in Bolivia and in southern Peru, in the highland region surrounding Lake Titicaca, during festivities such as St Peter, the Virgin of Carmen, St John, the Feast of the Rosary, or the Feast of the Cross.

The *quena quenas* provide music for a dance of the same name, which is supposed to represent the hunting of the llama. In it, the musicians, who are at the same time danc-

ers, display, as ornaments, exquisite examples of the feather art of the highlands of Bolivia and Peru: *llayt'us*, *llaitus* or *llaythus* (arches over the hat) covered with multicolored feathers, and *chakanas*, feather ornaments over the shoulders. In addition, they wear the *khawa* or *qhawa*, a characteristic cuirass of feline skin. The women, who also dance and sometimes sing, wear *phuyus* or *phullus*, a kind of green feather mantle carried on the back, as well as *polleras* (traditional skirts), and *aguayos* or brightly colored mantles. As in many other dances of the high plateau, masked or disguised characters participate, representing animals (for example the *kusillo*) or mythical beings.

The *choquela* (also written *chokela*, *chuqila* or *chok'ela*) is a flute with 6 holes on its front. It appears in two sizes: the *choquela guía*, 60 cm long, and the *choquela malta*, 40 cm, tuned in parallel fifths. They are usually accompanied by a *wank'ara* bass drum provided with the indispensable *bordona*. They are played in the Peruvian-Bolivian high plateau, above all in the departments of La Paz and Puno, around Lake Titicaca. They can be heard in

Image 19 (prev. page).
Detail of *quena quenas*.
[Photo: E. Civallero].



festivities such as those of St Peter, the Virgin of Candelaria, or the Virgin of the Rosary.

The music of the *choquelas* provides the sonic frame for an Aymara ritual dance of the same name, considered one of the oldest of this ethnic group. It supposedly stages the planting of the potato (*chuqi*) and the hunting of the vicuña, by means of the *chaqu* or enclosure system, for its domestication. Researchers believe that the *choquela* dance is a ritual representation of the process of domestication of nature by ancient Andean societies.

The men, musicians and dancers at the same time, wear hats plumed with *pariwana* (Andean flamingo) feathers, and a vicuña hide hanging on their backs; the women, dancers and singers, also wear the hide, and dress in their best festive *polleras*. A good number of masked or

disguised characters participate, including the fox, the *kusillo*, and the condor.

Finally, the *lichiguayos* (also written *lichiuayu*, *lichiuwayo* or *lichihuayo*, *q'ichiwayus* or *pingallos*) are aerophones used in the Chilean Norte Grande, regions of Arica and Parinacota, Tarapacá, and Antofagasta, and in the department of Oruro, Bolivia, generally, although not exclusively, in Aymara and Chipaya communities. The etymology of their name is still debated, although most of the authors who have studied them agree in indicating that it would mean "[flutes of] milkmen" or "milk [flutes]."

They are large vertical flutes, between 30 and 60 cm long and 5 cm in diameter, provided with between 4 and 7 finger holes, including one rear hole, which the Chipaya call *pheta*. They are built using *tokhoro* or *tuquru* cane. They are played in troops in which at least three different sizes participate: a larger flute, 60 cm, a medium one of 40 cm, and a small one of 30 cm; the sound of the first would be separated from that of the last by an octave interval, and

Image 20 (prev. page).
Detail of *choquela*.
[Photo: E. Civallero].



from that of the second by an interval of a fourth or fifth. The Chipaya call them *pac pingallo*, 60 cm, *taipi pingallo*, 40 cm, and *kholto pingallo*, 30 cm.

In northern Chile they sound during Corpus Christi and patron-saint festivals, almost always in small villages: in the larger ones, the music of *zampoña* ensembles, Andean panpipes, is generally preferred. In Bolivia, and according to Ernesto Cavour, the *lichiguayos* are typical of communities such as Curahuara de Carangas, Totorá, Corque, Salinas de Garci Mendoza, Venta y Media, and Santa Ana de Chipaya, in the department of Oruro. In traditional contexts, especially in Bolivia, but also in Chile, the *lichiguayos* accompany a dance of the same name, which stages the *chaqu*, the ancient hunt of the vicuña, or the sacrifice of one of those camelids to Pachamama (Mother Earth) by a shepherd. On the basis of these facts, musicologists and folklorists suppose that the

lichiguayos would originally have been associated with communities of shepherds, rites related to Andean camelids, and a particular period of the year.

However, oral tradition indicates that the *lichiguayos* were Indigenous servants of the estates of the Bolivian high plateau, who were in charge of milking the cows. It has therefore been inferred that what initially was an instrument and dance of llama herders and/or vicuña hunters eventually also included cattle keepers, and varied its name accordingly.

At present, the *lichiguayos* are instruments with a little-known repertoire and limited diffusion, although researchers indicate that they preserve their vitality in relatively isolated communities. Some modern musical groups have used them in their recordings and performances, although not all successfully, and several urban dance ensembles, especially in La Paz, have presented the flutes and the dance in Carnivals and other festivals, thereby ensuring, in a certain way, their survival and diffusion.

Image 21 (prev. page).

Lichiguayos in Chiapa, Chile (1976).

[Photo: Collection E. Grebe].



In addition to these "large *queenas*," there are several large *queenas* in Peru that are not always played in ensembles. Among them are 4-hole *queenas* such as the *lawata* of Cusco and the *pinkuyllu* of the Q'ero people, with holes sometimes rectangular; 5-hole *queenas* such as the *jilawata* or *hilawata* of Chucuito, called *pusa* in Sandia, department of Puno, 80 cm x 5 cm, cane, 5+0; the *flauta* or *ph'alaata* of Sandia, department of Puno, 60-120 cm, *chuqui*, *qeaphuti* and *toccoro* cane, 4+1; and the *quenacho* of Lampa and Chucuito, department of Puno, 120 cm, 4+1; 6-hole *queenas*, such as the *chacallo* or *chaqallo* of Chucuito and Puno, department of Puno, 60-80 cm x 3 cm, *chaya* cane, used in the *chaqallus* or *chaqalladas* dances; and 7-hole *queenas*, such as the *machu quena* or *ocona* of the departments of Puno, in Melgar, and Ayacucho, 80-90 cm, 6+1; the San Borgia quena of Chumbivilcas, department of Cusco, 70 cm, made of elder wood; and the *puli puli* of Puno, 60 cm.

Image 22 (prev. page).

Detail of *lichiguayo*.

[Photo: E. Civallero].



Small *queenas*

The distribution area of "peasant" *queenas* covers practically the whole of the Andean world; something understandable if one takes into account that, together with *pífanos* or transverse flutes and *pinkillos* or duct flutes, they are one of the most popular and widely used wind instruments. Their variety is greater in the nuclear area of the Central Andes, the Peruvian Sierra, and in that of the Southern Andes, the Bolivian high plateau and valleys. In the neighboring regions (Colombia, Ecuador, northern Chile, and northwestern Argentina) the diversity is significantly reduced to a couple of classes.

For Bolivia, Ernesto Cavour cites the *queenas karhuani*, *yura*, *viticheña*, and *chatre*, in addition to several others provided with 5 front holes and one rear hole, and

Images 23 of 24 (prev. page).

Lichiguayo (anterior and posterior views)

[Photos: Ethnologisches Museum, Berlin, Germany].



generically labeled as "peasant" and "pastoral."

The *quena karhuani* (also written *kharwani* or *qarwani*) or "of llama herders" was apparently the one used by the drivers of llama caravans; with 6 frontal holes and one rear hole, it is still used in the area of Aquilambaya, department of La Paz. The *quena yura*, 25 cm long, with 5 frontal holes and one rear hole, from the localities of Yura and Punutuma, department of Potosí, is usually tuned in A and is used to perform songs during *mink'a* work (tasks carried out collectively within the community). At 24 cm in length, the *quena viticheña* is one of the smallest traditional *quen*as of Bolivia. Tuned in C, it has 5 frontal holes and one posterior hole and is used in Vitichi, department of Potosí. Finally, the *quena chatre*, 36 cm long and with 6 front holes, is used as an alternative to the *pinkillos chatre* or *chatripuli*.

Images 25 and 26 (prev. page).

Traditional *quen*as.

[Photos: Ethnologisches Museum, Berlin, Germany].

In Peru, traditional *quen*as usually have a square mouth-piece. The *Mapa de los instrumentos musicales de uso popular en el Perú* (1978) indicates the following "small" *quen*as:

- With four holes, such as the *phalawata* of the *kuntur tusuy* or "condor dance" of Canchis, department of Cuzco, 60 cm, 4+0, rectangular holes, and the *quena* of Nasca, department of Ica, 30-40 cm, tuned in G or D.
- With five holes, such as the *lawata* or *lawita* of Calca, department of Cuzco, 30-50 cm, 4+1, rectangular holes; the *quena* or *flauta* of Huamanga, department of Ayacucho, 40-50 cm, *mamac* cane or *carrizo*, 4+1; and the *quena* or *flauta* of Nasca, department of Ica, 30-40 cm, 4+1.
- With six holes, such as the *requinto* of Huamalíes, department of Huánuco, 5+1; the *quena* of Chiclayo, department of Lambayeque, 30 cm, cane, 6+0; and the *quena*, called *pingollo* in Huánuco, the most widely used variety in the north of the country, from Huánuco northward, 25-45 cm, 5+1. This latter is built with *shoa*, *shoga* or *shogosh* cane for items of high and overhigh register,



less than 40 cm, and with female *mamaq* cane for specimens of low register, more than 40 cm; in addition, metal and plastic are also used.

· With seven holes, such as the small *shilo* or *chilo* of the departments south of Huánuco, 15-25 cm, cane or plastic, 6+1; the *quena*, the most widely used variety in the south of the country, from Huánuco southward, 33 cm, 6+1; the *quena* of the *jula jula* dance, from Huánuco southward, above all in Puno and Cusco, 40 cm, 6+1, called *pinkillo* in Chumbivilcas and *conivi* in certain sources; the *chayna*, from Huánuco southward, 43 cm, 6+1, called *quena de chatripuli* in Puno, Arequipa, and Moquegua; and the *quena de quena quena*, departments of Puno and Apurímac, 50 cm x 2 cm, 6+1, called *clarín* in Sandia when it is used for the dances of *novenantes* and *pulis*, or *quenali* when the tube is thinner, 1.5 cm.

Images 27 and 28 (prev. page).

Traditional *quenas*.

[Photos: Ethnologisches Museum, Berlin, Germany].

Rubén Pérez Bugallo (1996) indicates that the presence of "*quena*-type" instruments in the present-day territory of Argentina dates from the second millennium BC, according to archaeological finds. However, the *quena* currently played in the folkloric sphere, above all in the northwestern area of the country, would have been introduced from Bolivia. Something similar would have occurred in the Norte Grande of Chile, according to Samuel Claro Valdés (1997).

In the Andes of Ecuador and Colombia, "*quena*-type" aerophones are not common within the most traditional organology. Those that do exist are, above all, borrowings from the Central and Southern Andes. The Cañari people from the province of Cañar, Ecuador, use the so-called *chuchi pingullo*, a *quena* made from condor bone and provided with 3-4 holes.

Traditional *quenas*, with their particular structures and scales and their unique repertoires, represent one of the most authentic facets of the Andean sound universe. Unfortunately, their modern derivatives preserve very



little of the original roots, in a process presented as "enrichment" but which entails an implicit impoverishment.

Image 29 (prev. page).
Traditional *quen*as.
[Photo: E. Civallero].

Quenacho and quenali

The "model" or "professional" *quena* used by most current performers of Andean music is a standardized version of the small "peasant" *quen*as. From that "model" *quena*, and drawing inspiration both from European aerophone families, with instruments in different tessituras, and from certain specific sizes of traditional *quen*as, the different types of *quenachos* and *quenalis* were created.

Quenacho (also written *kenacho*) is the generic name given to all varieties of large "model" *quen*as, and, on occasion, to some large traditional *quen*as. These instruments are tuned in lower scales than the "model" *quena*, generally in C major, although also in D and B major, and measure between 50 and 80 cm in length.



A special type of *quenacho* is the so-called *mamaquena* (*mama-quena*, *mama quena*, etc.). It is an instrument tuned in G major, but one octave lower than the "model" *quena* and a fourth lower than the *quenacho* in C major. The mouthpiece systems of this type of aerophone are varied, and depend on the length of the tube, which is usually considerable. One of them is similar to that of the Chinese *xiao* flute, and makes use of a natural node of the cane.

For their part, the small varieties of the "standard" instrument are called *quenali* (*kenali*) or *quenilla*. They are tuned in higher scales, normally above A major, and, above all, in C major, one octave higher than the most common *quenacho*, and a fifth higher than the "model" *quena*.

For a long time, it was necessary to have diatonic *quenas* tuned in all possible scales (the series of *quenachos*, *quenas*, and *quenalis*) in order to perform songs in different keys. In this regard, the Peruvian *quena* player Alejandro Vivanco Guerra carried out an enormous pedagogical task by creating the "tonal system" (1974), which makes it possible, through "cross fingerings" or "forked fingerings" and "half-stopped" holes, to produce altered notes and, consequently, to make an instrument that is naturally diatonic capable of playing a chromatic scale.

Cavour (1994) notes that the term *quenacho* used to designate an Aymara dance from the Copacabana area, department of La Paz, Bolivia, performed with a *quena* longer than usual; the word would have become associated with the flute. He also indicates that *quenali* is an Aymara neologism for "small *quena*."

Image 30 (prev. page).

Comparative view of *quenacho*, *quena* and *quenali*.

[Photo: E. Civallero].



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Image 31 (prev. page).
Comparative view of *quenacho*, *quena* and *quenali*.
[Photo: E. Civallero].



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Image 33.
Golden *quena*, Nasca culture, Peru.
[Photo: Private collection].

Image 32 (prev. page).
Quena player, Recuay culture, Peru.
[Photo: Unrecorded source].





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Image 35.
Pottery *quena*, Chincha culture, Peru.
[Photo: Private collection].

Image 34 (prev. page).
Bone *quena* from Cusco, Inca culture, Peru.
[Photo: Museo de América, Spain].





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Image 37.
Bone *quen*as, Nasca culture, Peru.
[Photo: Musical Instrument Museum, USA].

Image 36 (prev. page).
Bone quena from Cusco, Inca culture, Peru.
[Photo: Museo de América, Spain].



